

## Syllabus Master programme in Chemical and Biochemical Engineering for study year 2010/2011

*Kemiteknik, inr kemisk- och biokemisk processteknik, master*

Syllabus updated on 2009-11-17 by Chef utbildnings- och forskningsenheten.

Programme cancelled. Last term: S11



**This is an adjusted view**

Enrolled A09

### Credits

The programme requires 120 credits.

### Degree

[Master of Science \(120 credits\) - Major: Chemical Engineering](#)

### Specialisations

| Name   | For admitted until |
|--|--------------------|
| INR010 Chemical and Biochemical Engineering<br><i>Kemisk och biokemisk processteknik</i> |                    |

### Eligibility

General entry requirements, second cycle.

Bachelors degree of minimum 180 ECTS with at least 60 ECTS in the area of chemistry or chemical engineering. At least 22,5 credits in Mathematics at university level and basic courses in chemical reaction engineering and transport processes is required.

Applicants must have documented skills in English corresponding to the level of English in Swedish upper secondary education (English B).

Proven language proficiency in English, can for example be shown by an international English test as TOEFL or IELTS. Some specified university studies can also be equivalent.

You can find the details at the attached link.

<http://www.ltu.se/edu/d4672/1.8819?l=en>

### Selection

The selection procedure is based on academic qualifications, quality and quantity aspects

### Compulsory courses

#### Compulsory courses 120 credits

| Course code            | Name  | Credits |
|------------------------|---|---------|
| <a href="#">B0005K</a> | Biochemistry and Biotechnology                | 7.5     |
| <a href="#">F0040T</a> | Sustainable Energy systems                    | 7.5     |
| <a href="#">F7010T</a> | Fuels, Combustion and Gasification Technology | 7.5     |
| <a href="#">B7001K</a> | Design of Biochemical/Chemical Process Plants | 7.5     |
| <a href="#">B7003K</a> | Bioprocess Engineering                        | 7.5     |

|                        |                                  |     |  |
|------------------------|----------------------------------|-----|--|
| <a href="#">K7002K</a> | Surface and Colloid Chemistry    | 7.5 |  |
| <a href="#">T7001K</a> | Instrumental Analysis            | 7.5 |  |
| <a href="#">T7002K</a> | Chemical Reaction Engineering II | 7.5 |  |
| <a href="#">T7004K</a> | Industrial Catalysis             | 7.5 |  |
| <a href="#">T7005K</a> | Cellulose and Paper Technology   | 7.5 |  |

**AND**

### Selective courses 30 credits

| Course code            | Name  | Credits |  |
|------------------------|---|---------|--|
| <a href="#">B7002K</a> | Master Thesis, Biochemical and Chemical Engineering | 30      |  |
| <a href="#">K7001K</a> | Master Thesis, Chemistry                            | 30      |  |
| <a href="#">P7003K</a> | Master Thesis, Process Metallurgy                   | 30      |  |
| <a href="#">T7003K</a> | Master Thesis, Chemical Engineering                 | 30      |  |

**AND**

### Selective courses 15 credits

| Course code            | Name  | Credits |  |
|------------------------|---|---------|--|
| <a href="#">B0004K</a> | Unit Operations   | 7.5     |  |
| <a href="#">B7005K</a> | Senior Design Project in Biochemical and Chemical Engineering | 7.5     |  |
| <a href="#">K7004K</a> | Senior Design Project in Chemistry                            | 7.5     |  |
| <a href="#">T0002K</a> | Chemical Reaction Engineering I                               | 7.5     |  |
| <a href="#">T7006K</a> | Senior Design Project in Chemical Technology                  | 7.5     |  |
| <a href="#">F7012T</a> | Advanced Heat and Mass Transfer                               | 7.5     |  |

### Optional courses

Credits for optional courses on the programme: 0

### Study schedule

## Year of study 2 Admitted in A09 Is offered in 10/11

|                        |   | Sp 1 Sp 2 Sp 3 Sp 4 |   |   |   |          |          |
|------------------------|---|---------------------|---|---|---|----------|----------|
| <a href="#">B7005K</a> | Senior Design Project in Biochemical and Chemical Engineering | 7.5                 | x |   |   | Optional |          |
| <a href="#">F7012T</a> | Advanced Heat and Mass Transfer                               | 7.5                 | x |   |   | Optional |          |
| <a href="#">K7004K</a> | Senior Design Project in Chemistry                            | 7.5                 | x |   |   | Optional |          |
| <a href="#">T7002K</a> | Chemical Reaction Engineering II                              | 7.5                 | x |   |   |          |          |
| <a href="#">T7006K</a> | Senior Design Project in Chemical Technology                  | 7.5                 | x |   |   | Optional |          |
| <a href="#">B7001K</a> | Design of Biochemical/Chemical Process Plants                 | 7.5                 |   | x |   |          |          |
| <a href="#">B7005K</a> | Senior Design Project in Biochemical and Chemical Engineering | 7.5                 |   | x |   | Optional |          |
| <a href="#">K7004K</a> | Senior Design Project in Chemistry                            | 7.5                 |   | x |   | Optional |          |
| <a href="#">T7006K</a> | Senior Design Project in Chemical Technology                  | 7.5                 |   | x |   | Optional |          |
| <a href="#">B7002K</a> | Master Thesis, Biochemical and Chemical Engineering           | 30                  |   |   | x | x        | Optional |
| <a href="#">K7001K</a> | Master Thesis, Chemistry                                      | 30                  |   |   | x | x        | Optional |
| <a href="#">P7003K</a> | Master Thesis, Process Metallurgy                             | 30                  |   |   | x | x        | Optional |
| <a href="#">T7003K</a> | Master Thesis, Chemical Engineering                           | 30                  |   |   | x | x        | Optional |